

Notice of Allowability

Application No.

10/791,510

Examiner

Linh T. Nguyen

Applicant(s)

SHIN ET AL.

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/02/04.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

Allowable Subject Matter

Claims 1-21 are allowed.

In regards to claim 1, none of the references of record alone or combination disclose or suggest an optical pickup device comprising: a dual wavelength light source module for emitting a selected one of two light beams having different wavelengths; a wavelength selective dual grating having a predetermined thickness while being formed at an upper surface thereof with a plurality of upper diffraction grating patterns adapted to split said selected light beam, received from said dual wavelength light source, into at least three beams of zero, +1st, and -1st orders, when said selected light beam is one of said two light beams, and at a lower surface thereof with a plurality of lower diffraction grating patterns adapted to split said selected light beam into at least three beams of zero, +1st, and -1st orders, when said selected light beam is the other light beam; a beam splitter for receiving said selected light beam emerging from said dual grating, and reflecting said selected light beam toward an optical disc; an objective lens for receiving said selected light beam from said beam splitter, and focusing said selected light beam onto a spot on an optical disc; a hologram for receiving said three beams of said selected light beam reflected from said optical disc after striking a signal track of said optical disc, said hologram maximizing a diffraction efficiency of the zero-order one of said three beams, included in said selected light beam, traveling in a straight direction, when said selected light beam is said one light beam, while maximizing a diffraction efficiency of the +1st or -1st-order one of

said three beams, included in said selected light beam, traveling in a refracted direction, when said selected light beam is said other light beam, said hologram being adjustable in position to focus said zero-order beam and said +1st or -1st-order beam on the same spot; and a photodetector for detecting said three beams of

said selected light beam emerging from said hologram, and generating electrical signals, based on said detected beams, respectively.

Claims 14 have similar claim languages, therefore are allowable for the same reason. Claims 2-13 and 15-21 are allowable as being dependent on allowable claims.

Citation of Relevant Prior Art

Park et al discloses an optical pickup apparatus with a dual grating receiving 2 different wavelengths.

Furuhata et al discloses an optical pickup apparatus with dual grating hologram receiving 2 different wavelengths.

Takada discloses an optical pickup apparatus with dual grating receiving 2 different grating have different length groove on each side.

Sumi et al discloses an optical pickup apparatus with dual grating receiving reflected light from the optical disk.

Komma et al discloses an optical pickup apparatus with a hologram transmitting and receiving reflect light of dual wavelength beam.

Sugura et al discloses an optical pickup apparatus with holographic optical element which converges light beam onto an optical disk.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN
December 8, 2006



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER